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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,097	07/31/2003	Randolph Leising	37505.0202	3529

7590 06/19/2006
Michael F. Scalise
Wilson Greatbatch Technologies, Inc.
10,000 Wehrle Drive
Clarence, NY 14031

EXAMINER

WEINER, LAURA S

ART UNIT PAPER NUMBER

1745

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,097

Applicant(s)

LEISING ET AL.

Examiner

Laura S. Weiner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-13 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 4, 14 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7-03; 4-05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 8, 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 is rejected because it is unclear what is meant by “built in one of a case-negative design, a case-positive design and a case-neutral design”.

Claims 18-19 are rejected because these claim do not further limit claim 17 from which the claims depend from.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-3, 8-10, 17-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kweon et al. (6,372,385).

Kweon et al. teaches a battery comprising a positive electrode where the surface of the active material is coated with a metal oxide. The method includes the steps of producing a crystalline powder of $\text{LiA}_{1-x-y}\text{B}_x\text{C}_y\text{O}_2$; coating the crystalline powder with a metal alkoxide sol; and heat-treating the powder coated with the metal oxide sol. Kweon et al. teaches in column 7, example 5 that $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2$ powder coated with the Mg-methoxide. Kweon et al. teaches in column 6, Example 1, that the positive active material comprises the above active material, a conductive carbon, a PVDF binder and a solvent and that the negative electrode comprises lithium metal. The battery also comprises an electrolyte comprising EC:DMC at a 1:1 volume ratio and LiPF_6 .

4. Claims 1-2, 5, 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Takeuchi et al. (6,458,487).

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Takeuchi et al. teaches a positive electrode active material comprising the formula $\text{Li}_{1+x}\text{Mn}_{2-x-y}\text{MyO}_4$. Takeuchi et al. teaches in columns 17-18, Table 1, that the cover layer comprises LiAlMnO_4 , $\text{Li}_4\text{Ti}_5\text{O}_{12}$, etc. Takeuchi et al. teaches in columns 23-24, that the electrolyte comprises EC/EMC and LiPF_6 . Takeuchi et al. teaches in column 11, that the current collector can be aluminum foil, stainless steel foil, nickel foil and the like. Takeuchi et al. teaches in column 11, line 66 to column 12, line 6, that the negative electrode can comprise a light metal.

5. Claims 1-2, 5, 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Koga et al. (6,534,217).

Koga et al. teaches a secondary battery comprising a positive and a negative electrode where the positive electrode comprises a LiMn_2O_4 center and a ITO (indium tin oxide) or SnO_2 covering layer. The quantity of the coating portion is 0.001 mol to 0.1 mol per 1 mol of center portion. Koga et al. teaches in column 2, that the center portion can comprise TiS_2 , MoSe_2 or V_2O_5 , etc. Koga et al. teaches in column 4, that the negative electrode comprising a material capable of occluding and releasing a lithium metal or lithium. Koga et al. teaches in column 8, that the electrolyte comprises LiPF_6 , EC and MEC.

6. Claims 1-3, 5-6, 8-10, 17-19, 21-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kweon et al. (6,737,195).

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Kweon et al. teaches a positive active material comprising $\text{Li}_x\text{Ni}_{1-x-y-z}\text{Mn}_y\text{O}_2$ core and a metal oxide layer formed on the core. Kweon et al. teaches in column 3, that it is preferable that the thickness of the metal oxide layer is 1-100 nm and that the metal of the metal oxide layer can be V, Sn, Mg, Al, etc. Kweon et al. teaches in column 6, line 56 to column 7, line 4, that a cell was fabricated with the positive electrode on an aluminum foil current collector and a lithium metal counter electrode comprising an electrolyte comprising LiPF₆ in EC and DMC. Kweon et al. shows in Figures 1A-1B the particle size.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 11-13, 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kweon et al. (6,372,385) or Kweon et al. (6,737,195) or Takeuchi et al. (6,458,487) or Koga et al. (6,534,217).

Kweon et al. or Takeuchi et al. or Koga et al. teaches the claimed battery but does not specifically teach that the battery can be employed in or as a medical device.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from

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a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Allowable Subject Matter

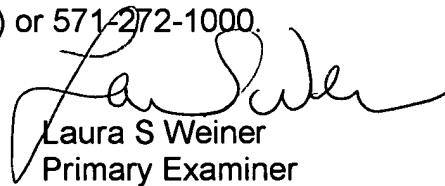
9. Claims 4, 14 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Laura S Weiner
Primary Examiner
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June 13, 2006